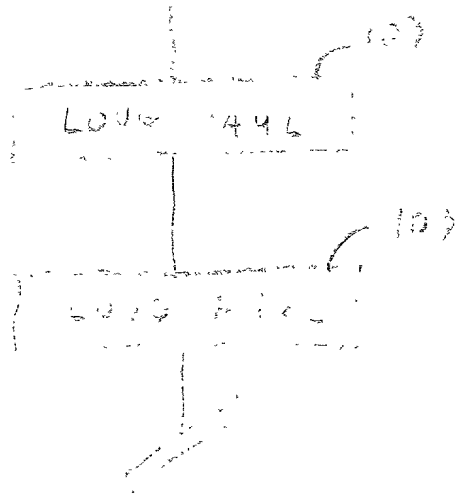
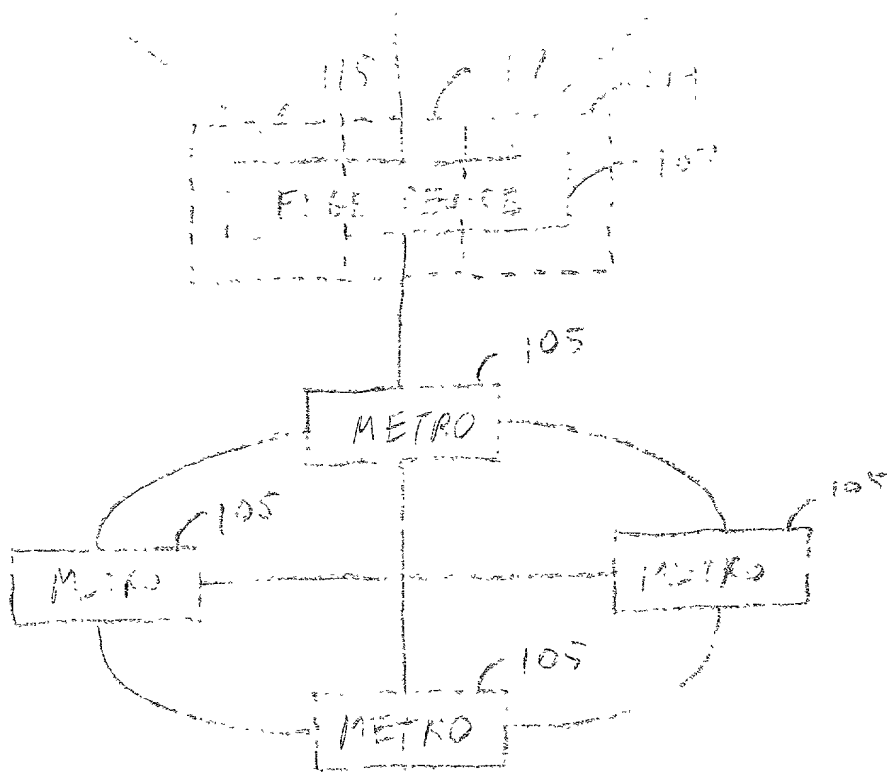


CPA

100

[Faint handwritten notes and markings]



TOP SECRET

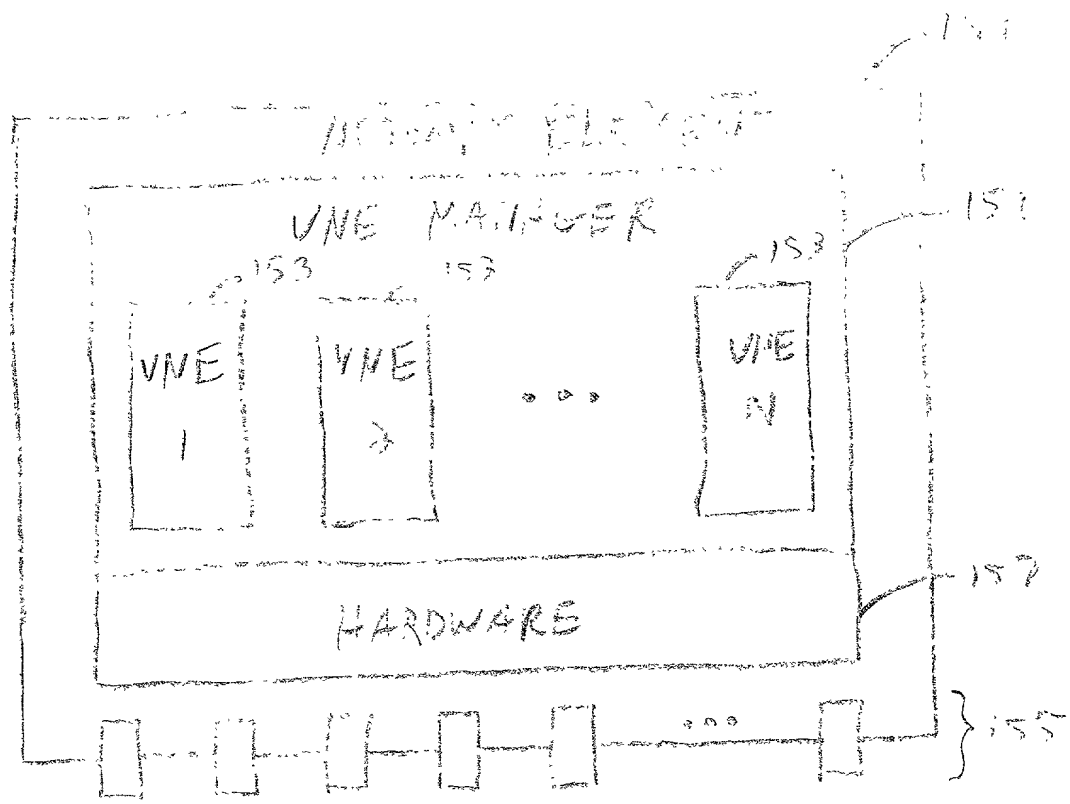


FIG. 2

10

207

2 2 2

OK

NR 1000000

37% (Ne-22-γ)

● ● ●

4 physical switch/matrix

VME 1 - 253

207 207
253 % CPU 253 % Memory

0.3 { P1 P2 P3 P4 P5 ... P14

OR

253 { RESOURCE AVAILABLE
253 CPU 3075 Memory
P1 P2 P3 P4 P5 ... P14

FIG. 3B

Virtual Network Element Manager

VNE Management

Resource Usage

Create VNE

Resource Utilization by VNEs

Memory: 0%

CPU: 0%

	Port	Status
1		Not in Use
2		Not in Use
3		Not in Use
4		Not in Use
5		Not in Use
6		Not in Use
7		Not in Use
8		Not in Use
9		Not in Use

FIG. 4A

Virtual Network Element Manager

VNE Management

Resource Usage

Create VNE

VNE ID

Application Binary

Memory Allocation

CPU Allocation

Port

Status

Create

Reset

00000000

Virtual Network Element Manager

VNE Management

Resource Usage

Create VNE

VNE ID

VNE 1

Application Binary

QoS.bin

Memory Allocation

CPU Allocation

Port

Status

1

2

3

4

5

6

1

2

3

4

5

6

Create

Reset

VirtualNetwork Element Manager

VNE Management VNE 1

Application Binary: QoS Bin

Memory: 20%

CPU: 40%

Port	Status
1	<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>
3	<input checked="" type="checkbox"/>
4	<input checked="" type="checkbox"/>
5	<input type="checkbox"/>
6	<input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/>
9	<input type="checkbox"/>

Virtual Network Element Manager

VNE Management

VNE 1

Resource Usage

Create VNE

VNE ID

VNE 2

Application Binary

Experimental.bin

Memory Allocation

CPU Allocation

Port	Status
5	<input checked="" type="checkbox"/>
6	<input checked="" type="checkbox"/>
7	<input checked="" type="checkbox"/>
8	<input checked="" type="checkbox"/>
9	<input type="checkbox"/>

Create

Reset

VNE Management		VNE 1	VNE 2	Port	Status
Application Binary:		Experimental		1	<input type="checkbox"/>
Memory:				2	<input type="checkbox"/>
CPU:				3	<input type="checkbox"/>
				4	<input type="checkbox"/>
				5	<input checked="" type="checkbox"/>
				6	<input checked="" type="checkbox"/>
				7	<input checked="" type="checkbox"/>
				8	<input checked="" type="checkbox"/>
				9	<input type="checkbox"/>

11

TFE20"89202660

Virtual Network Element Manager

VNE Management

Resource Usage

Create VNE

VNE 1

VNE 2

Resource Utilization by 2 VNES

Memory:

CPU:

	Port	Status
1	VNE 1	
2	VNE 1	
3	VNE 1	
4	VNE 1	
5	VNE 2	
6	VNE 2	
7	VNE 2	
8	VNE 2	
9	Not In Use	

Fig. 10

INITIALIZING
VNE

RECEIVE VNE ID

RECEIVE INPUT INDICATING
VNE APPLICATION TO
EXECUTE

RECEIVE INPUT AS TO RESOURCES
OF THE NETWORK ELEMENT
TO ALLOCATE TO THE VNE

ALLOCATE RESOURCES OF
THE NETWORK ELEMENT TO
THE VNE

EXECUTE THE VNE
APPLICATION

DONE

U.S.S

0920230.073101

09920268-073101

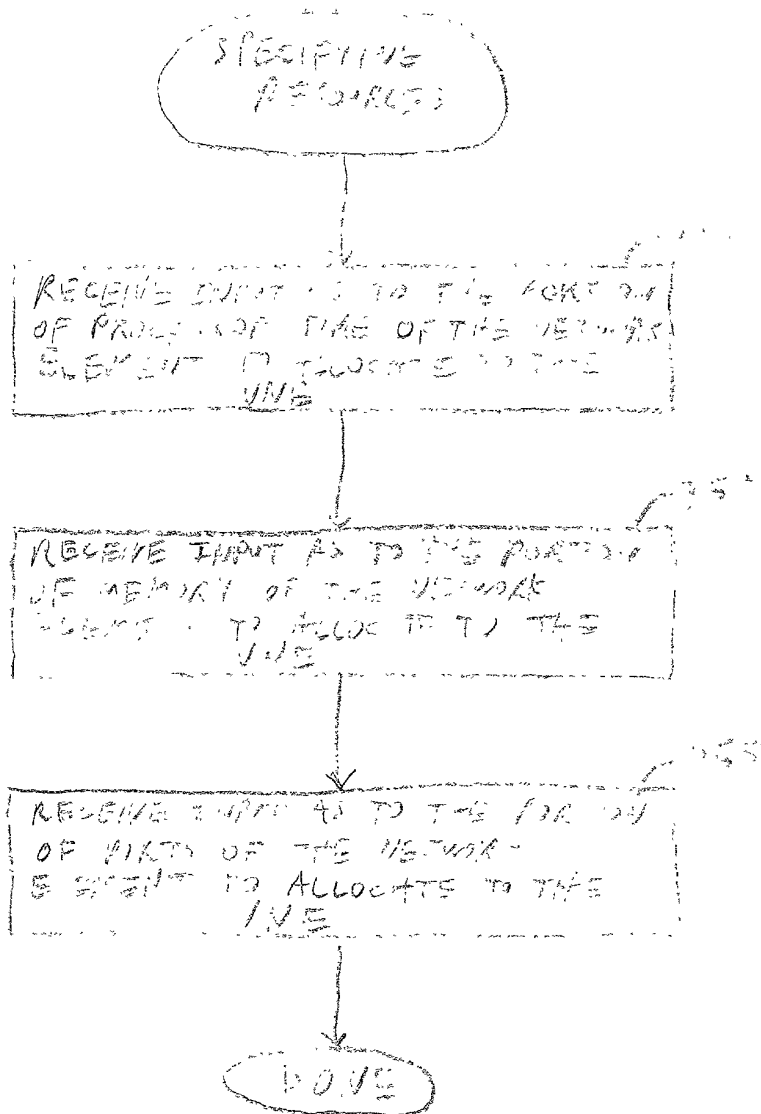


Fig. 3

FIG. 7

0992068-073101

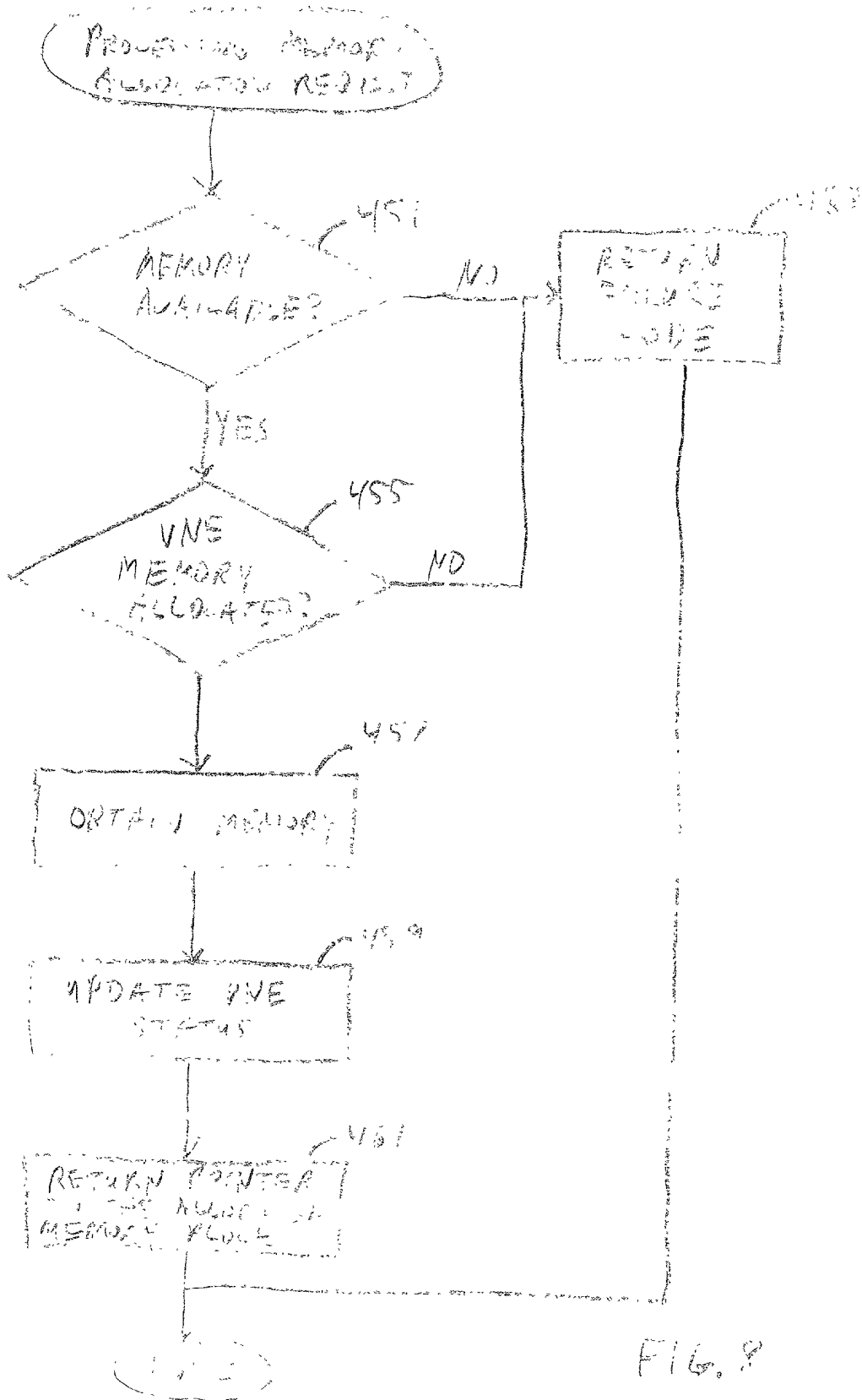


FIG. 8

